"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, Mikhail Avgustinovich; STROGANOV, L.P., inzh., red.; MARENKOVA, G.I., inzh., red.; MEDVEDEVA, M.A., tekhn.red.

[Handbook for electricians and maintenance men in train and railroad station radio communications] Posobie elektromekhaniku i monteru stantsionnoi i poezdnoi radiosviazi. Moskva, Gos. transp.zhel-dor.izd-vo, 1959. 285 p. (MIRA 13:3)
(Railroads--Communication systems)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, Mikhail Avgustinovich; NOVIKAS, M.N., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[ZhTU-3 railroad television system] Zheleznodorozhnaia televizionnaia ustanovka ZhTU-3. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1960. 105 p. (MIRA 14:7)
(Industrial television) (Railroads--Communication systems)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, M. M. In Latvian

BERZIN, M. M. — "Organization of Fodder Base on Collective Farms of the Latvian SSR." Latvian Agricultural Academy, 1955. In Latvian (Dissertation for the Degree of Candidate of Agricultural Sciences)

SO: Izvestiya Ak. Nauk Latviyskoy SSR, No. 9, Sept., 1955

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, N., inzh. (Moskva).

No more saltpeter baths. Okhr. truda i sots. strakh. no.3:80-82 S '58. (MIRA 12:1)
(Aluminum founding--Hygienic aspects)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, N., tekhn. inspektor

This has to be taken into consideration. Okhr.truda i sots. strakh. no.6:16-19 D '58. (MIRA 12:1)
(Machinery industry) (Industrial safety)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

[redacted], Yu.A.; [redacted]

Relation of the Russian platform to the geosynclinal areas in the Pre-Cambrian. Trudy Lab. geol. okean. no.[redacted] '64

([illegible])

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, N.A.

Reflections of block tectonics of the basement in Middle and Upper Paleozoic structures of central Tuva. Geol.i geofiz. no.12:39-47 '61. (MIRA 15:5)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(Tuva A.S.S.R.—Geology, Structural)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, N.A.; KLITIN, K.A.

Structure of the main fault zone in the Eastern Sayans in the upper Uda. Geol.i geofiz. no.7:16-25 '61. (MIRA 14:9)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.
(Sayan Mountains--Faults (Geology))

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

KOSYGIN, Yu.A.; BASHARIN, A.K.; BERZIN, N.A.; VOTAKH, O.A.;
KRASIL'NIKOV, B.N.; PARFENOV, L.M.

Principal in the structural elements in the Late Pre-Cambrian
of Siberia. Geol. i geofiz. no.10:68-82 '62. (MIRA 15:12)

1. Institut geologii i geofiziki Sibirskogo otdeleniya
AN SSSR, Novosibirsk.
(Siberia--Geology, Structural)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, N.A.; MISSARZHEVSKIY, V.V.; SEMIKHATOV, M.A.

Structure of the Kichenskaya series in the main fault zone of the Eastern Sayan Mountains. Geol. i geofiz. no.2:28-43 '63. (MIRA 16:5)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk i Geologicheskiy institut AN SSSR, Moskva.
(Sayan Mountains--Geology)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

KOSYGIN, Yu.A.; BASHARIN, A.K.; BERZIN, N.A.; VOLONTEY, G.M.; VOTAKH, O.A.; KRASIL'NIKOV, B.N.; PARFENOV, L.M.; SHPAKOVSKAYA, L.I., red.

[Pre-Cambrian tectonics of Siberia] Dokembriiskaia tektonika Sibiri. Novosibirsk, Red.izd. otdel Sibirskogo otd-niia AN SSSR, 1964. 124 p. (MIRA 18:1)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut geologii i geofiziki. 2. Chlen-korrespondent AN SSSR (for Kosygin).

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, N.A., SEMIKHATOV, M.A.

Facies changes of Upper Pre-Cambrian sediments in the northern wing of the Eastern Sayan anticlinorium. Geol. i geofiz. no.1: 132-142 '65. (MIRA 18:6)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN,N.P.; BELYAVTSEVA,T.V.; SHCHEGOLEV,M.I., redaktor; LEVONEVSKAYA, L.G., tekhnicheskiy redaktor

[Traffic regulations, and rules for pedestrians in Leningrad and Province] Pravila dvizheniia transporta i peshekhodov v g. Leningrade i Leningradskoi oblasti. [Leningrad] Lenizdat, 1955. 144 p. (MLRA 9:3)

1. Leningrad. Upravleniye militsii. Otdel regulirovaniya ulichnogo dvizheniya.

(Leningrad--Traffic regulations)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, R., master sporta; MOISEYEV, V.

Combined victories. Kryl.rod. 14 no.6:26-28 Je '63. (MIRA 16:7)
(Kiev Province--Parachuting)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

L 43092-65 EWP(e)/EWT(m)/EWP(i)/EWP(b) Pq-4 WH
ACCESSION NR: AR5006825 S/0081/65/000/001/B059/B059

15
B

SOURCE: Ref. zh. Khimiya, Abs. 1B434

AUTHOR: Berzin', R.Ya.; Sedmal, U.Ya.; Vayvad, A.Ya.

15

TITLE: Physicochemical studies on aluminosilicophosphate glass. II. Crystallizing ability of glass of the system RO - alumina - silica - phosphorus pentoxide

CITED SOURCE: Izv. AN LatvSSR, Ser. khim., no. 6, 1963, 663-669

TOPIC TAGS: glass, glass crystallization, aluminosilicate glass, aluminophosphate glass, magnesia, calcium oxide, phosphorus pentoxide, calcium phosphate, aluminum phosphate

TRANSLATION: The authors studied the crystallizing ability of glass of the system MgO - CaO - Al_2O_3 - SiO_2 - P_2O_5. They found low crystallizing ability in glass with the following molar proportions between the oxides: SiO_2/Al_2O_3 = 1.7-2.8; P_2O_5/Al_2O_3 = 0.7-0.9; $(SiO_2 + P_2O_5 + Al_2O_3)/RO$ = 1.5-2.0, if RO is 0.44 moles of CaO and 0.56 moles of MgO. The least crystallizing ability among the samples of glass studied was shown by a glass in which the molar ratio of MgO/CaO = 2. It was established that

Card 1/2

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L 43092-65
ACCESSION NR: AR5006825

the crystallization of these types of glass results mainly in the separation of Ca and Al phosphates. For Part I, see RZhKhim, 1963, 6M72. Authors' abstract.

SUB CODE: MT ENCL: 00

Card 2/2

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

L 12890-66 EWP(e)/EWT(m)/EWP(b) WH

ACC NR: AT6000485 SOURCE CODE: UR/0000/65/000/000/0156/0158

33
32
B+1

AUTHOR: Eyduk, Yu. Ya.; Sedmal, U. Ya.; Berzin', R. Ya.

ORG: None

TITLE: On the structure of aluminosilicophosphate glasses 15,44

SOURCE: Vsesoyuznoye soveshchaniye po stekloobraznomu sostoyaniyu. 4th, Leningrad, 1964. Stekloobraznoye sostoyaniye (Vitreous state); trudy soveshchaniya. Leningrad, Izd-vo Nauka, 1965, 156-158

TOPIC TAGS: lithium glass, aluminophosphate glass, silicate glass, glass property

ABSTRACT: The paper deals with glasses of the three systems Al_2O_3-SiO_2-P_2O_5, Li_2O-Al_2O_3-SiO_2-P_2O_5, and MgO-CaO-Al_2O_3-SiO_2-P_2O_5. In the first system, studies of the chemical stability, crystallizing tendency, coefficient of linear thermal expansion, softening temperature, and microhardness of the glasses indicate that they consist of the groups $[PO_4]$, $[AlPO_7]$, and $[SiO_4]$, weakly bonded to one another. As the Al_2O_3 content increases, more $[AlPO_7]$ groups are apparently formed in which P_2O_5 is bound firmly. In the second system, it is postulated that the factor determining glass formation from the standpoint of energy considerations is the similarity between the structure of the vitreous phase and that of the crys-

Card 1/2

2

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L 12890-66

ACC NR: AT6000485

talline phases present in this region. Mineralogical and x-ray diffraction analyses of the crystalline compounds formed showed that crystallization during melting of the glasses involves formation of lithium phosphates and lithium aluminum phosphates. In the third system, the study of physicochemical properties of the glasses indicated that in their crystallization and dielectric properties they are not inferior to aluminum borosilicate glass used in the production of glass fiber, and they are therefore recommended for such use. The glass formation diagrams of the three systems are given. Orig. art. has: 3 figures.

SUB CODE: 07, 11/ SUBM DATE: 22May65

Card 2/2 MW

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

L 11999-66 EWT(l)/EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG

ACC NR: AP5022861 SOURCE CODE: UR/0051/65/019/003/0378/0386

63

AUTHOR: Trinkler, M. F.; Plyavin', I. K.; Berzin', B. Ya.; Everte, A. K.

ORG: none

TITLE: Spectroscopy of some activated alkali-halide crystals

SOURCE: Optika i spektroskopiya, v. 19, no. 3, 1965, 378-386

TOPIC TAGS: alkali halide, luminescence, activated crystal, absorption band, band spectrum, transition probability

ABSTRACT: The material of this paper was presented at the Twelfth Luminescence Conference at L'vov in 1964. The authors report results of an investigation of the kinetics of intracenter luminescence in alkali-halide crystals activated with Tl^{+} and Pb^{++} (KCl-Tl, KBr-Tl, KI-Tl, KCl-Pb, KBr-Pb). The study was made by oscillographic observation of individual scintillations excited by brief exposure to the light of a spark (Fig. 1). The luminescence was excited in the long-wave absorption band of the activator, corresponding to the $^1S_0 \rightarrow {}^3P_1$ transition in free Tl^{+} and Pb^{++} ions. The measurements showed that the effect of temperature on the kinetics of luminescence was the same for all crystals except KBr-Pb. All of the crystals activated by thallium have two emission bands excited in the $^1S_0 \rightarrow {}^3P_1$ absorption band. The energy spacing between the bands increases from one host to another in the order KCl, KBr, and KI. The crystals activated by Pb^{++} differed sharply from the thallium phosphors. In KCl-Pb the 340 nm band was found to be elementary, and no strong temperature dependence of the photoscintillation decay time was observed for KBr-Pb. The possible

Card 1/2

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

L 11999-66
ACC NR: AP5022861

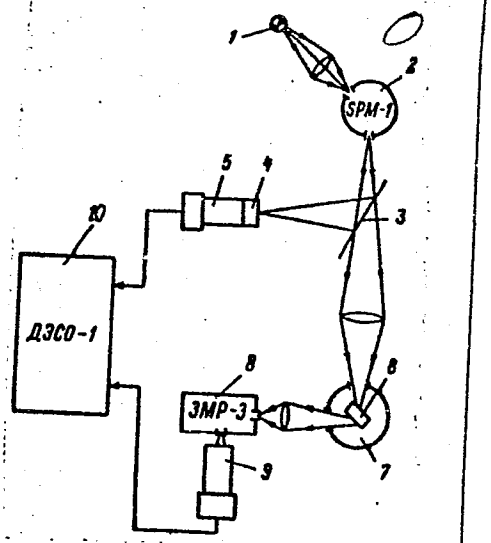


Fig. 1. Diagram of experimental setup. 1 - Spark gap, 2 - monochromator, 3 - semitransparent quartz plate, 4 - light-transforming crystal, 5 - photomultiplier, 6 - investigated crystal, 7 - cryostat, 8 - monochromator, 9 - photomultiplier, 10 - oscilloscope.

causes of the splitting of $^3P_1$ level of the activator are discussed. Data were obtained on the energy structure, radiative transition probabilities, and other parameters of the luminescence centers. Orig. art. has: 4 figures, 5 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 07Aug64/ ORIG REF: 016/ OTH REF: 003

Card 2/2

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, S.A. [Bersins, S.]; ERINA, R.L. [Erina, R.]

Methodology for splenoportography. Vest. rent. i rad. 40 no.5:62-3 S-O '65. (MIRA 18:12)

1. Kafedra fakul'tetskoy khirurgii (zav. - prof. E.T.Ezeriyetis [Ezerietis, E.]) Rizhskogo meditsinskogo instituta.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

MARGULIS, M.S., kand. med. nauk; [illegible], U.Ya. [Burdins, U.]

Control of adequate heparin neutralization by [illegible] in artificial blood circulation. Vest. khir. 93 no.11:16-22 N '64 (MIRA 18:6)

1. Iz Rizhskogo meditsinskogo instituta (rektor - dotsent V.A. Korzan).

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, R., master sporta (Kiyev); MARTYNENKO, G., master sporta (Kiyev); YUSHCHENKO, V., master sporta (Kiyev)

With a straight line but from a lower base. Kryl. rod. 12 no.4: 12 Ap '61. (MIRA 14:7)

(Parachuting)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', V. K. and GRENNAUS, G. I.

"Etiology and Diagnosis of Paratyphus Toxic-Infections," Zhur. Mikrob., Epidemiol. i Immunobiol., No.6, 1944. p. 59

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, V. K.

BERZIN, V. K. -- "Paraintestinal Bacteria As Stimulants of Alimentary Toxicoinfectious Diseases." Latvian State U, 1948. In Latvian (Dissertation for the Degree of Candidate of Medical Sciences)

SO: Izvestiya Ak. Nauk Latviyskoy SSR, No. 9, Sept., 1955

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', V. K.

"Atypical Strains as Provokers of Toxic-Infectious Diseases," Zhur. Mikrob. Epidemiol. i Immunobiol., No.6, 1953

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', V.K.; GLINSKAYA, Ye.V.; KANEL', I.A.

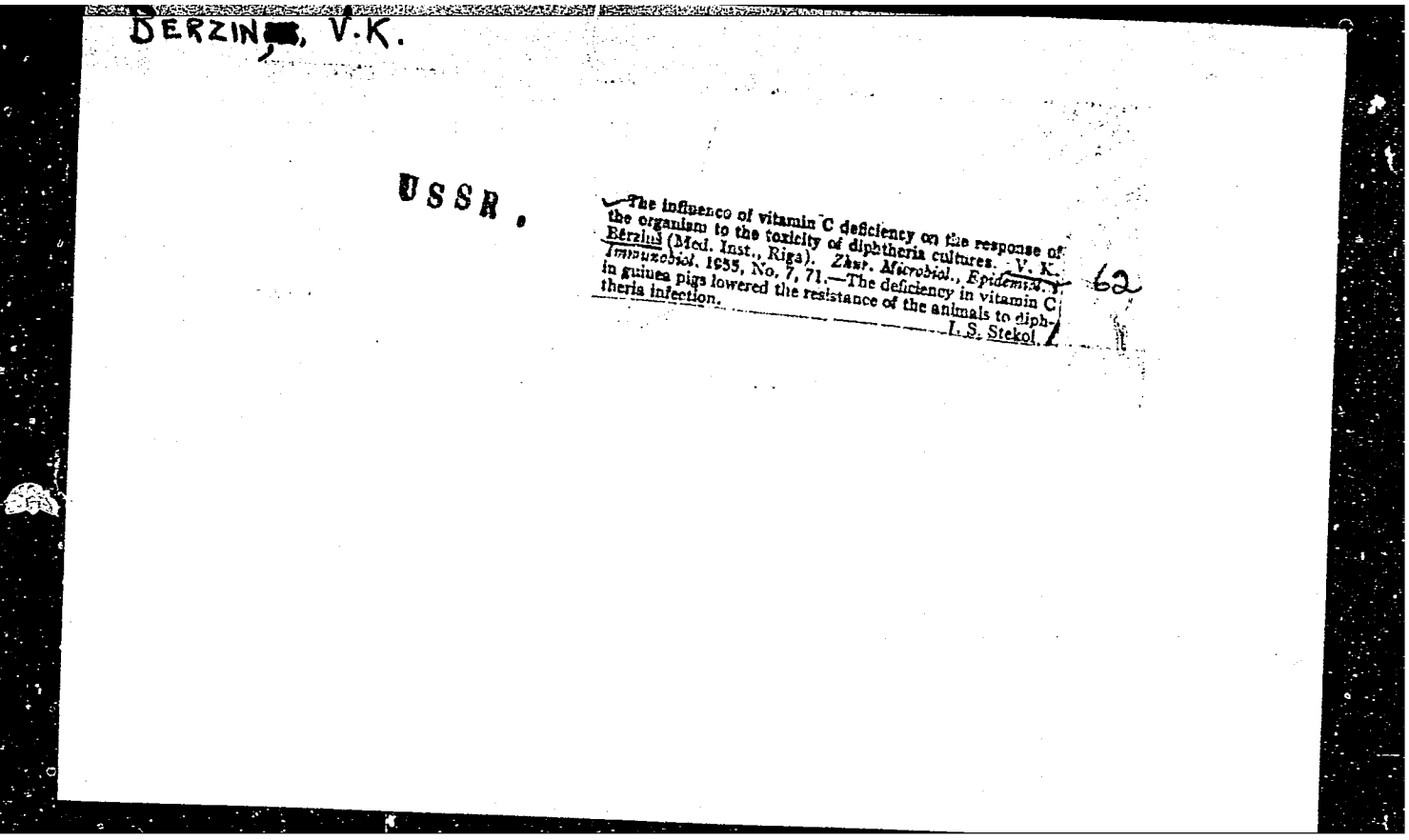
Result of a mass Schick's test in determining immunity to diphtheria in children in Riga during 1951. Zhur.mikrobiol.epid. i immun. no.8: 76-79 Ag '54. (MLRA 7:9)

1. Iz Rizhskogo meditsinskogo instituta (dir. prov. E.M.Burtniek) i Rizhskoy gorodskoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach M.M.Popova)

(DIPHTHERIA, immunology,
Schick test, results in Latvia)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8



BERZIN, V.K.

USSR.

The influence of vitamin C deficiency on the response of the organism to the toxicity of diphtheria cultures. V. K. Bērziņš (Med. Inst., Riga). *Zhur. Mikrobiol., Epidemiol. i Immunobiol.* 1955, No. 7, 71.—The deficiency in vitamin C in guinea pigs lowered the resistance of the animals to diphtheria infection. I. S. Stekol.

62

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', V.K.

Vitamin C deficiency as a factor lowering acquired immunity to diphtheria or obstructing its development; experimental investigations. Zhur.mikrobiol.epid. i immun. no.9:18-23 S '55. (MLRA 8:11)

1. Iz kafedry mikrobiologii (zav.prof. A.M.Kirkhenshteyn) Rizhskogo meditsinskogo instituta (dir.prof. E.M.Burtnek)

(SCURVY, experimental,
eff. on diphtheria immun.reactivity in animals)
(DIPHTHERIA, immunology,
vacc.,eff. of exper.scurby on reactivity)
(VACCINES AND VACCINATION,
diphtheria, eff. of exper.scurvy on reactivity)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', V.K.

A.M.Kirkhenshtein; an outstanding scientist working toward the protection of public health. Zhur.mikrobiol.epid. i immun. 28 no.11:156-158 N '57. (MIRA 11:3)

(BIOGRAPHIES,
Kirkhenshtein, August M. (Rus))

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', V.K.

Possibility of restoring immunity against diphtheria by giving ascorbic acid to guinea pigs deficient in vitamin C. Zhur. mikrobiol.epid. i immun. 28 no.11:103-107 N '57. (MIRA 11:3)

1. Iz kafedry mikrobiologii Rizhskogo meditsinskogo instituta.
(DIPHTHERIA, immunology,
prod. of immun. in scorbutic guinea pigs by vitamin C ther (Rus)
(SCURVY, experimental,
prod. of diphtheria immun. in guinea pigs by vitamin C ther. (Rus)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN V.K.

EXCERPTA MEDICA Sec 7 Vol 13/5 Pediatrics May 59

1183. THE STUDY OF THE EFFECT OF VITAMIN C ON THE STABILITY OF IMMUNITY TO DIPHTHERIA IN IMMUNIZED CHILDREN (Russian text) - Berzin V. K. and Glinskaya E. V. - ZH. MIKROBIOL. (Mosk.) 1957, 12 (33-38) Tables 5

Administration to children of ascorbic acid, 100-200 mg. per day for 2 weeks during the winter and spring season, decreased the percentage of positive Schick reactions from 18.4 to 5.4. The immunization with BCG as well as with vaccinia did not decrease the acquired immunity to diphtheria. Administration of ascorbic acid is recommended for a successful maintenance of immunity to diphtheria acquired by active immunization, especially during the winter-spring season.

Anigstein - Galveston, Tex. (L, 7, 17)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', V. K.: Doc Med Sci (diss) -- "On the factors reducing the acquired immunity to diphtheria". Gor'kiy, 1958. 38 pp (Gor'kiy State Med Inst im S. M. Kirov), 350 copies (KL, No 7, 1959, 128)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', V.K.; BLUMBERG, M.Ya.

Method for setting up and evaluating the opsonocylophagic reaction.
Zhur.mikrobiol.epid. i immun. no.1:124-130 Ja '59. (MIRA 11:4)

1. Iz kafedry mikrobiologii Rizhskogo meditsinskogo instituta.
(PHAGOCYTOSIS,
opsonic-phagocytic reaction (Rus)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', V.K.

Studies on the possibility of restoring (creating) immunity to diphtheria following additional immunization with antigen in guinea pigs deficient in vitamin C. Zhur.mikrobiol.epid. i immun. 29 no.3:30-32 Mr '58. (MIRA 11:4)

1. Iz kafedry mikrobiologii Rizhskogo meditsinskogo instituta.
(DIPHTHERIA, immunology
immunogenesis in vitamin C-defic. guinea pigs after immun. with antigen (Rus)
(SCURVY, experimental,
diphtheria immunogenesis in guinea pig after immun. with antigen (Rus)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

USSR / Microbiology. Human and Animal Pathogens. F
Corynebacteria.

Abs Jour: Ref Zhur-Biol., No 2, 1959, 5628.

Author : Berzin', V. K.
Inst : Not given.
Title : Study of the Possibility of Restoration (Development) of Immunity to Diphtheria in C-Hypovitaminoses of Guinea Pigs by Supplementary Toxoid Immunization.

Orig Pub: Zh. mikrobiol., epidemiol., i immunobiol., 1958, No 3, 30-32.

Abstract: 56 guinea pigs with C-hypovitaminosis were immunized four-fold with diphtheria toxoid at intervals of 11, 38 and 44 days. Twenty-four days after the second inoculation, 32 days after the third, and 16 days after the fourth immunization

Card 1/2

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', V.K. [Berzin, V.]; GLINSKAYA, Ye.V.; CHERNINA, Ye.A.

Results of diphtheria control in Riga. Zhur. mikrobiol. epid. i immun. 32 no.7:129-132 Je '61. (MIRA 15:5)

1. Iz Rizhskogo meditsinskogo instituta i Rizhskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.
(RIGA--DIPHTHERIA--PREVENTION)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', V.K. [Berzins, V.]; PRIYEDNIYEK, E.Ya. [Priednieks, E.]

Effect of nonspecific sensitization with various antigens on the intensity of the tuberculin reaction in guinea pigs. Zhur. mikrobiol., epid. i imm. 41 no. 2:102-107 F '64. (MIRA 17:9)

1. Rizhskiy meditsinskiy institut.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

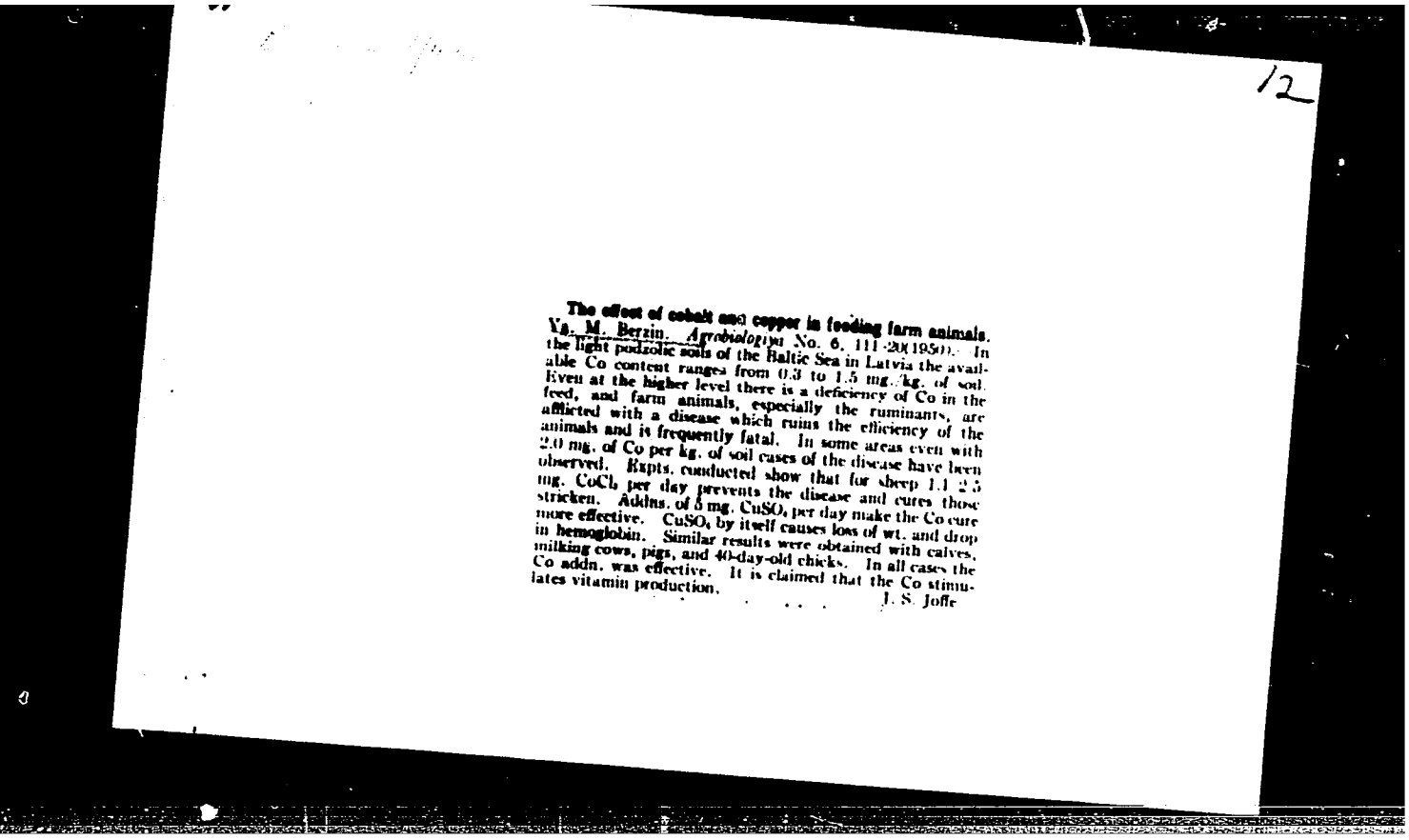
BERZIN', V. N.

20922 Berzin', V. N. Rol' lektsii v prepodavanii molochnogo dela v sel'skokhoz-yaystvennykh vuzakh. Sbornik dokladov perevcy Vsesoyuz. Konf-tsii po molech. dele. M., 1949, s. 25-31

SO: LECTPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8



12

The effect of cobalt and copper in feeding farm animals. Ya. M. Berzin. *Agrobiologiya* No. 6, 111-20(1950). In the light podzolic soils of the Baltic Sea in Latvia the available Co content ranges from 0.3 to 1.5 mg./kg. of soil. Even at the higher level there is a deficiency of Co in the feed, and farm animals, especially the ruminants, are afflicted with a disease which ruins the efficiency of the animals and is frequently fatal. In some areas even with 2.0 mg. of Co per kg. of soil cases of the disease have been observed. Expts. conducted show that for sheep 1.1 2.5 mg. $CoCl_2$ per day prevents the disease and cures those stricken. Addns. of 5 mg. $CuSO_4$ per day make the Co cure more effective. $CuSO_4$ by itself causes loss of wt. and drop in hemoglobin. Similar results were obtained with calves, milking cows, pigs, and 40-day-old chicks. In all cases the Co addn. was effective. It is claimed that the Co stimulates vitamin production.

J. S. Joffe

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, Ya.M. [Berzins, J.], prof., doktor sel'khoz. nauk; YURITSYNA, I. red.; PETERSON, A.[Petersons, A.], tekhn. red.

[Importance of cobalt and copper salts in the feeding of farm animals] Znachenie solei kobal'ta i medi v kormlenii sel'skokhoziaistvennykh zhivotnykh. Riga, Izd-vo Akad. nauk Latviiskoi SSR, 1952. 123 p. (MIRA 14:12)
(Feeding) (Cobalt salts) (Copper salts)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

Berzin, Ya. M.

USSR / Farm Animals. Small Horned Animals. U-3

Abs Jour : Ref Zhur - Biologiya, No 16, 1957, 72067

Author : Berzin, Ya. M.
Title : On the Increase in Sheep Productivity

Orig Pub : Sb. Tr. In-ta Zootechn. i Zoogigieny AN LaSSR, 1955, 6, 3-12.

Abstract : One group of Latvian dark-haired breed, beginning grom the 10th day (before mating) and before lambing received 0.3 mg $CoCl_2$, 0.5 mg $MnSO_4$ and 0.5 mg $ZnCl_2$ each per 1 kg of live weight daily. The control group received no food supplements. The shorn wool in the experimental animals was 0.31 kg higher, the fertility improved, and the number of offspring increased 8.7 percent. The tests were repeated in three different farms with these modifications: in each farm, one group received no microelements, the 2nd group received $CoCl_2$, and the third received the same mixture as the one described above. With complex supplements, the increase in offspring was 26-40 percent; stillbirths were reduced.

Card : 1/1 - 15 -

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BERZIN, YA. M.

USSR/Farm Animals - Wild Animals. Q-6

Abs Jour : Ref Zhur - Biol., No 1, 1958, 2622

Author : Ya. M. Berzin'
Inst :
Title : An Increase of the Productivity of Silver Foxes.

Orig Pub : Sb. tr. In-ta zootekhn. i zoogigiyeny AN Latv. SSR, 1955, 6, 29-40

Abstract : Numerous experiments demonstrated that the administration of 0.5 milligrams of Cobalt chloride to one kilogram of the live weight of a female fox, no later than 10 days before coupling and during the entire pregnancy period, improves the reproduction capacities of the animal and provides the young stock with more vitality. The group of female foxes which had received cabalt chloride produced litters which showed an average of 0.43 cubs more than in the control group, when all cubs were 30 days of age.

Card 1/1

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

FLROV, Ya. V.

Latvijas PSR lopbaribas kimiskais sastavs. Riga, Latvijas PSR Zinatnu akasemija, 1956. 181 p. (Chemical composition of Latvian fodder)
LA Not in LC

SO: Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 5, 1958

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, YA. M., ed.

Cukkopiba. 2.izedvums. Riga, Latvijas valsts izdevnieciba, 1956. 209 p.
(Swine raising. 2d ed.)
DA Not in DLC

SO: Monthly Index of East European Accession (EEAI) LC. Vol. 7, No. 5, 1958

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, Ya. M.

USSR/General Division - Scientific Institutions. A-3

Abs Jour : Ref Zhur - Biologiya, No 1, 1957, 74.

Author : Ya.M. Berzin
Inst : Institute of Zootechnology and Zoohygiene
Title :

Orig Pub : V kn.: 10 let raboty AN Latv SSR (1946-1956). Riga, Izd-vo AN Latv SSR, 1956, 127-146.

Abst : A review of the scientific-research work conducted by the institute in the ten years from the day of its founding in connection with the creation of a fodder base for animal husbandry, multiplication of farm animals, fowls, the development of apiculture, nutrition of farm animals (mainly on the role of microelements and vitamins), zoohygiene, and the mechanization of work on stock breeding farms. Plans have been outlined for the development of dairy stock. Data on the application of the scientific achievement of the institute to the practical work of Kolkhozes and Sovkhozes are cited.

Card 1/1

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

USSR/Farm Animals. General Problems

Abs Jour : Ref Zhur - Biol., No 11, 1958, No 49933

Author : Berzin' Ya. M.
Inst : [redacted] LatvSSR
Title : Employing Microelement Salts in Feeding of Farm Animals.

Orig Pub : V. sb.: Mikroelementy v s. kh. i meditsine. Riga, AN LatvSSR, 1956, 511-527

Abstract : Cows receiving daily 10-12 mg of $CoCl_2$ produced calves which had a live weight of 35.3 kg at birth as compared to 31.1 kg from control cows. When for 10 days before farrowing sows were given 0.3 mg of $CoCl_2$+0.5 mg of $MnSO_4$ + 0.5 mg of $ZnCl_2$ each per 1 kg of their live weight, the live weight of their piglets was raised by 14-41.5 percent at birth, and the number of piglets was increased by 0.7 piglet per litter. In sheep, which were given the microelements mentioned above, fertility became larger by 8.7 percent as compared to control animals, and the average weight of lambs increased by 250 gr. In other experiments fertility of sheep receiving this complex

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

USSR / Farm Animals. Wild Animals. Q-4

Abs Jour : Ref Zhur - Biol., No 10, 1958, No 45250

Author : Berzin', Ya. M.
Inst : Not given
Title : The Salts of Trace Elements in the Ration of Fur-Bearing Animals.

Orig Pub : Latv PSR Zinatny Akad. vestis, Izv. AN LatvSSR, 1957, No. 6, 55-60

Abstract : Experiments were conducted on silver-black foxes, minks, and Arctic foxes, divided into 5 groups. The salts of the trace elements in different combinations, but uniformly per 1 kg. of body weight during the period of pregnancy, were fed to the animals. The control groups were not given the salts. In foxes and minks, the best results as to the coming in heat, fertility, and viability of the offspring were obtained in the group receiving salts of Co, Mn, and Zn. The experiments with Arctic foxes did not produce definite results.

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Card 2/2

BERZIN Ya. M.

USSR / Farm Animals. Small Horned Stock. Q-2

Abs Jour: Ref Zhur-Biol., No 23, 1958, 105700.

Author : Berzin, Ya. M.
Inst : AS Latvian SSR.
Title : Trace Elements in the Feeding of Sheep.

Orig Pub: LatvPSR Zinatnu Akad. vestis, Izv. AN LatvSSR, 1957, No 8, 73-78.

Abstract: "Licking blocks" (L) were prepared from sodium chloride with an admixture of salts of trace elements. L were constantly present in feed troughs and racks. It was found that the sheep which licked them liked better those with a greater amount of salts of trace elements (140.4 - 206.5% of the norm) than L which contained less of these salts (93 -

Card 1/2

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USSR / Farm Animals. Small Horned Stock. Q-2

Abs Jour: Ref Zhur-Biol., No 23, 1958, 105700.

Abstract: 164.2%). The fertility of sheep receiving L increased by 8.7% - 10.87%, the average weight of lambs at birth was 0.03 - 0.338 g. higher, and the number of productive lambs obtained from 100 ewes was 17.78 - 19.8 greater from the sheep not given. L.

Card 2/2

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

ALIYEV, G.A., akademik, otv.red.; ABUTALYBOV, M.G., prof., red.; BERZIN, Ya.M., akademik, red.; GADZHIYEV, F.M., kand.vet.nauk, red.; GYUL'AKHMEDOV, A.N., kand.sel'skokhoz.nauk, red.; IVANOVA, N.I., kand.sel'skokhoz.nauk, red.; KARAYEV, A.I., akademik, red.; GUSEYNOV, D.M., red.; GUSEYNOV, B.Z., prof., red.; PEYVE, Ya.V., red.

[Abstracts of reports of the Third All-Union Conference on microelements, April 1958] Tezisy dokladov Vsesoyuznogo soveshchaniya po mikroelementam, Aprel' 1958. Baku, Izd-vo Akad.nauk Azerbaidzhanskoi SSR, 1958. 398 p. (MIRA 12:3)

1. Vsesoyuznoye soveshchaniye po mikroelementam, 3d, 1958. 2. Akademiya nauk Azerb.SSR (for Aliyev, Karayev). 3. Akademiya nauk Latviyskoy SSR (for Berzin). 4. Chlen-korrespondent Akademii nauk Azerb.SSR (for D.M.Guseynov). 5. Chlen-korrespondent Akademii nauk SSSR (for Peyve). 6. Institut pochvovedeniya i agrokhimii AN Azerb.SSR (for D.M.Guseynov, Aliyev, Gyul'akhmedov). 7. Institut biologii AN Latv.SSR (for Peyve). 8. Stalinskiy meditsinskiy institut (for Ivanova). 9. Institut botaniki AN Azerb.SSR (for B.Z.Guseynov). 10. Azerbaydzhanskiy institut zemledeliya (for Abutalybov).

(Trace elements)

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PEYVE, Ya.V., glav. red.; ALIYEV, G.A., akademik, red.; ABUTALYBOV, M.G., prof., red.; BERZIN, YA.M. [Berzins,J.], akademik, red.; VINOGRADOV, A.P., akademik, red.; VLASYUK, P.A., akademik, red.; VOYNAR, A.O., prof., red.; DROBKOV, A.A., prof., red.; KATALYMOV, M.V., prof., red.; KOVAL'SKIY, V.V., red.; KOVDA, V.A., red.; KEDROV-ZIKHMAN,O.K., akademik, red.; LEONOV, V.A., akademik, red.; PETERBURGSKIY, A.V., prof., red.; SINYAGIN, I.I., red.; CHERNOV, V.A., prof., red.; CHANISHVILI, Sh.F., red.; SHKOL'NIK, M.Ya., prof., red.; SHCHERBAKOV, A.P., kand. sel'khoz. nauk, red.; VENGRANOVICH, A., red.; DYMARSKAYA, O., red.; KLYAVINYA,A [Klavina, A.], tekhn. red.

[Use of trace elements in agriculture and medicine; transactions] Primenenie mikroelementov v sel'skom khozyaistve i meditsine; trudy. Riga, Izd-vo Akad.nauk Latviiskoi SSR, 1959. 706 p. (MIRA 14:12)

1. Vsesoyuznoye soveshchaniye po mikroelementam. 3d, Baku, 1958. 2. Chlen-korrespondent Akademii nauk SSSR (for Peyve, Kovda). 3. AN Azerbaydzhanskoy SSR (for Aliyev). 4. AN Latviyskoy SSR (for Berzin). 5. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Vlasyuk, Kedrov-Zikhman). 6. AN Belorusskoy SSR (for Leonov). 7. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Sinyagin, Koval'skiy). 8. Chlen-korrespondent AN Gruzinskoy SSR (for Chanishvili).

(Trace elements) (Biochemistry) (Agriculture)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', Ya.M.

The economics of calf raising. Zhivotnovodstvo 21 no.1:51-60 Ja '59. (MIRA 12:2)

1. Deystvitel'nyy chlen AN Latviyskoy SSR.
(Calves--Feeding and feeding stuffs)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', Ya.[Berzins, J.]

Mixed feed enriched with microingredients. Vestis Latv ak no.1: 157-165 '61. (EEAI 10:9)

(Feeds) (Trace elements)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', Ya. [Berzins, J.]

Mixed feed enriched with micr ingriedients. Vestis Latv ak no.1:157-165 '61.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, Ya. [Berzins, J.]

Sugar beets as a valuable feed for meat-type swines. Vestis Latv ak no.7:73-75 '62.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', Ya. [Berzins, J.]

Vitamin A and other trace ingredients in calf feeding.
Izv. AN Latv. SSR no.10:67-70 '63. (MIRA 17:1)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN, Ya.M., akademik

New system of feeding calves to the age of six months. Dokl. Akad. sel'khoz. nauk no.3:24-27 Mr '65. (MIRA 18:5)

1. Latviyskaya sel'skokhozyaystvennaya akademiy i Latviyskaya akademiya nauk.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', Yu. E. Cand Med Sci -- (diss) "On the clinic, diagnos[redacted] and pathogenesis of subarachnoid hemorrhages." Riga, 1957. 19 pp with illustrations (Min of Health [redacted]tvian SSR. Riga Med Inst), 300 copies (KL, 4-58, 85)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', Yu.E. (Riga)

Reactive changes in diskitis of the sacrolumbar area of the spine. Vop.neirokhir. 25 no.3:20-24 My-Je '61. (MIRA 14:5)

1. Kafedra gorpital'noy khirurgi k kafedra nervniykh bolezney Rizhskogo meditsinskogo instituta.
(INTERVERTEBRAL DISK—DISEASES)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', Yu.E. [Berzins, J.]

Combination of aneurysms of the arteries of the base of the brain with polycystic degeneration of the kidneys. Zhur. nevr. i psikh. 62 no.1:41-44 '62. (MIRA 15:4)

1. Kafedra nervnykh bolezney (zav. - prof. A.S.Pentsik) Rizhskogo meditsinskogo instituta.
(INTRACRANIAL ANEURYSMS) (KIDNEYS—TUMORS)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZIN', Yu.E. [Berzins, Ju.]; ANSHELEVICH, Yu.V. [Anselevics, Ju.] (Riga)

Activity of some enzymes in the cerebrospinal fluid. Vop. neirokhir. 27 no.1:46-50 Ja-F '63. (MIRA 16:5)

1. Iz kafedry nervnych bolezney (zav.-prof. A.S.Pentsik), kafedry gospital'noy khirurgii (zav.-prof. A.F.Lepukaln) (Liepukalns,A.) i kafedry gospital'noy terapii (zav. prof. B.M.Prozorovskiy) Rizhskogo meditsinskogo instituta.
(CEREBROSPINAL FLUID) (ENZYMES)

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BREMANIS, E.B. (Riga, ul. Gauyas, d. 14-a, kv.1); BERZIN', Yu.E. [Berzins, J.] kand. med. nauk.

Ligament of the carpus and its surgical treatment. Ortop., travm. i protez. 27 no. 1:66-68 Ja '66 (MIRA 19:1)

1. Iz kafedr obshchey khirurgii (zav. - prof. Ya. M. Bune) i nervnykh bolezney (zav. - prof. A.S. Pentsik) Rizhskogo meditsinskogo instituta. Submitted May 5, 1965.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

1. HILLERS, S.; BERZINA, A.

2. USSR 600

4. Nitrofuran

7. Crystalline modifications of 5-nitro-2-furfurylidene-aminoguanidine sulfate, Latv. PSR Zin. Akad. Vestis, No. 11, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

Distr: 4E2c(j)/4E3d

Alkylation of furan by olefins. II. Increase of increment of molecular refractions of mono- and polyalkylfurans. S. Hillers and A. Bērziņa. *Latvijas PSR Zinātņu Akad., Vēstis* 1959, No. 5, 109–14.—Treating 2-ethyl-5-acetylfuran with hydrazine yielded 2-ethyl-5-acetylfuran hydrazone (I). Treatment of I with $Ca(OH)_2$ at 200° yielded 45% 2,5-diethylfuran, b. 105–10°, n_D^{20} 1.4700, d_{20} 0.8890; maleic anhydride adduct m. 118°. Similarly, starting with 2,5-dimethyl-3-acetylfuran hydrazone, 77% 2,5-dimethyl-3-ethylfuran was prepd., b. 130°, n_D^{20} 1.4622, d_{20} 0.8990. Mol. refractions for these furans were detd. and compared with calcd. values. When the increment of 0.755, characteristic of the furan ring was not added to the sum of at. refractions in calcd. values, they agreed closer with exptl. values.

V. S. Mihajlov

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1-9-9 (NB)
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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZINA, A. K.

Berzina, A. K. - "Acquainting the Students in the First through Fourth Classes with Weather Phenomena." Academy of Pedagogical Sciences RSFSR. Sci Res Inst of Teaching Methods. Moscow, 1956 (Dissertation for the Degree of Candidate in Pedagogical Sciences).

So: Knizhnaya Letopis', No. 10, 1956, pp 116-127

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZINA, A.N.

Attack of gnats on man in nature. Paraz.sbor. 15:353-385 '53.
(MLRA 7:5)

1. Zoologicheskiy institut Akademii nauk SSSR.
(Diptera) (Parasites--Man)

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G

COUNTRY : USSR
CATEGORY : Zooparasitology. Mites and Insects as Disease Vectors. Insects
ABS. JOUR. : RZhBiol., No. 2 1959, No. 5760

AUTHOR : Berzina, A. N.
INST. :
TITLE : Attacks by Gnats under Natural Conditions of the Middle Course of the Angara River

ORIG. PUB. : Parazitol. sb., 1957, 17, 168-195

ABSTRACT : In the Bratskiy Rayon of Irkutskaya Oblast, in the Angara river and its tributaries, 23 species of gnats were discovered, 10 of them in the Angara river alone. The females which attack belong mainly to one species, viz., Simulium cholodkovskii. The latter species develops in the Angara river and produces two generations a year. The flying out of the first generation depends on

CARD: 1/5

23

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

COUNTRY :
CATEGORY :

SOURCE : RZhBiol., No. 2 1959, No. 5760

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : the time of freeing of the river from ice, while
cont'd. the second generation flies out by about the 20th
of August or shortly thereafter. The flying out
of gnats attains its maximum at the end of June.
The number of flying gnats and the activity of
their attacks depends mainly on temperature,
light and wind. The attacks take place within
the temperature interval of 7-33°, with a maxi-
mum at 16-27.9°. At 7-9.9° and 31-33.9°, no food-
searching flight of gnats was noted. The flight

CARD: 2/5

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

COUNTRY :
CATEGORY :

ABS. JOUR. : RZhBiol., No. 2 1959, No. 5760

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : of gnats is observed at an illumination ranging
cont'd. from 0 to 60,000 lx. The attacks of S. cholod-
kovskii started with an illumination of 10 lx,
and active flight began at 1,000 lx. The morning
and evening increase of flying activity is con-
ditioned by optimal intensity of illumination
(5,000-10,000 lx). A wind of up to 1.5 m/sec
does not exert noticeable influence. The inten-

CARD: 3/5

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

COUNTRY : G
CATEGORY :

S. T. JOUR. : Entomol., No. 2 1959, No. 5760

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : sity of the attacks decreases with the wind at
cont'd. 2 m/sec and ceases at 4.5 m/sec and over. At optimal temperature and illumination, the gnats were flying even when the wind had a greater intensity. Relative humidity within the limits of 10-100% has no influence on the flight. A fine drizzling rain also did not impede the flight. Flight stopped with the onset of fog. During the night, the gnats do not attack. The 24-hour rhythm of the behavior of gnats is conditioned

CARD: 4/5

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

COUNTRY :
CATEGORY : G

ABS. JOUR. : RZhBiol., No. 2 1959, No. 5760

AUTHOR :
INST. :
TITLE :

ORIG. PUB. :

ABSTRACT : by the combined stimulating action of periodi-
cont'd. cally changing illumination and temperature. It is possible that the depression of the flight activity during the daytime is caused by an intense illumination and a high temperature.-- I. A. Rubtsov

E N D

CARD: 5/5
#1015

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

MONCHADSKIY, A.S.; BERZINA, A.N.

Intraspecific relations of predatory mosquito larvae of the subfamily Chaoborinae (Diptera, Culicidae). Report No.2: Possibility of changes in the acuity of intraspecific relations during larval development. Zool.zhur. 38 no.10:1554-1558 O '59. (MIRA 13:2)

1. Zoological Institut of the Academy of Sciences of the U.S.S.R., Leningrad.
(Mosquitoes--Larvae) (Reflexes)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

GLUKHOVA, V.M.; BERZINA, A.N. [deceased]

Biting midges (Diptera, Heleidae) in the floodplain of the middle course of the Kacha River, Krasnoyarsk Territory. Ent. obozr. 42 no.4:825-832 '63. (MIRA 17:8)

1. Zoologicheskiy institut AN SSSR, Leningrad.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

NIKITINA, Ye.I.; BERZINA, A.P.; KUZNETSOVA, I.K.; SOTNIKOV, V.I.

Svanbergite in the Gornyy Altai. Dokl. AN SSSR 149 no.4:942-944 Ap '63. (MIRA 16:3)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom V.S.Sobolevym.
(Altai Mountains--Svanbergite)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZINA, A.P.; SOTNIKOV, V.I.

Excrescences on zircon crystals. Dokl. AN SSSR 150 no.4: 885-887 Je '63. (MIRA 16:6)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom V.S. Sobolevym.
(Altai Mountains--Zircon crystals--Defects)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZINA, A.P.; SOTNIKOV, V.I.

Some data on the temperatures and pressures accompanying the formation of the Sorsk deposit. Dokl. AN SSSR 163 no.1:179-182 Jl '65.
(MIRA 18:7)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR. Submitted February 15, 1965.

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

L 45170-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JG
ACC NR: AP6027892 SOURCE CODE: UR/0371/66/000/003/0015/0018

AUTHOR: Berzin', B. Ya.--Berzina, B.

ORG: Institute of Physics, AN Latv. SSR (Institut fiziki AN Latv. SSR)

TITLE: The delay component in Gamma-scintillations of the CsI-Tl crystal

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 3, 1966, 15-18

TOPIC TAGS: luminescent crystal, cesium iodide, gamma luminescence, photoluminescence, thalium, luminescence center, cesium compound, iodide

ABSTRACT: According to the literature, the decay component of gamma-scintillations at room temperatures is characterized by different decay times. The purpose of the present work is to investigate whether the decay component of gamma-scintillations is dependent upon the activator Tl, or on some other luminescent centers in the CsI-Tl crystal. The author examines CsI-Tl crystals with the real concentrations of 0.14; 0.5; 0.7; 2.9; 6.15 x 10^{-2} mol% and the nonactivated CsI crystal. The method of studying the luminescence kinetics of these crystals is used. The studies were conducted during gamma-excitation as well as

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L 45170-66

ACC NR: AP6027892

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during photo-excitation in the temperature range from 210 to 300K. The photo-scintillations were activated through an SPM-1 monochromator with a quartz prism by short flashes (~10^{-7} sec) of a high-voltage spark. The luminescence pulses through ZhS-4 and ZhS-17 light filters were recorded by an M12FQ35 photomultiplier, and the gamma-scintillations by M12FQ35 and FEU-12A photomultipliers. Single gamma- and photo-scintillations were obtained on the DESO-1 two-beam speed oscillograph. It is found that the centers responsible for luminescence with a delay time of 8 μsec are observed in the CsI-Tl crystal as well as in the CsI crystal and, consequently, are not the centers of the Tl activator. The nature of these centers has not been established conclusively. It is, therefore, desirable to have detailed investigations made of luminescence centers responsible for the 8-μsec emission components in order to regulate as much as possible their presence in scintillation crystals. Orig. art. has: 3 figures.

[26]

SUB CODE: 20/ SUBM DATE: 23Jul65/ ORIG REF: 005/ OTH REF: 005/ ATD PRESS: 5081

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APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZINA, B. P.

"Synthesis of hydrocarbons. XV. Synthesis of 3-alkynes (γ-acetylenic hydrocarbons)." by K. Ya. Lovtsa, E. A. Vikhorova, and B. B. Berzina. (p.[illegible])

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1951, Volume 21, No. 2

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

RYABOV, A.N., inzh.; BERZINA, B.F., inzh.

Generalization on experimental data on critical thermal loads in the forced motion of underheated liquid in cylindrical pipes. Teploenergetika 11 no.2:81-87 F '64. (MIRA 17:4)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

22796
S/070/61/006/003/007/009
E036/E435

24.7300 (1136, 1160, 1482)

AUTHORS: Berzina, I.G., Naumov, A.F. and Savintsev, P.A.

TITLE: On the solution and contact melting of irradiated crystals

PERIODICAL: Kristallografiya, 1961, Vol.6, No.3, pp.460-464

TEXT: Reports of some experiments on the rate of solution and contact melting of crystals of NaCl, Bi, Cd, Pb irradiated with X-rays and with slow neutrons. The experiments show that rate of solution and the contact melting are structure sensitive characteristics of the crystals. The authors consider that the effect of radiation on these properties has been neglected. As regards the rate of solution, this will only be structure sensitive if diffusion effects can be avoided. In fact no differences are observed between irradiated and non-radiated samples if the solution is not stirred. Also, excess stirring causes ill defined hydrodynamic behaviour. The final experimental arrangement consisted of a plate of salt of thickness 0.93 mm. A stream of a solution of NaCl in water is passed through a cylindrical hole in the plate of diameter 1.2 mm at a rate such that the Reynolds number

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On the solution and contact ...

remained constant at 4000 independently of the strength of the solution. In fact, the velocity of the jet was about 4 m/sec. The experiments were carried out at 21°C. The X-rays were provided by a tube with voltage of 47.5 kV and anode current 16 mA. The target was apparently of Cu. The crystal was placed at 5 cm from the centre of the tube. The dissolution rates were obtained for radiation times up to 16 hours and rates of dissolution of irradiated and non-irradiated samples V_{Ir} and $V_{U.Ir}$ compared. The ratio $V_{Ir}/V_{U.Ir}$ increased up to a ratio of about 1.4 after 16 hours irradiation depending on the solution strength. The experiment was only carried out on NaCl. In contact melting of two crystals A, B, these crystals are dissolved in a liquid film between the two crystals at a temperature T_{CM} less than the melting temperature of the pure crystals. Normally the crystals are pressed together to give a thin film. Experiments were carried out on several pairs of metals, one of which was irradiated for 50 hours from a radioactive Be source, which gave slow neutrons (4×10^6 neutrons/sec) at a distance of 20 cm from the sample which was in the form of

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

On the solution and contact ...

3 mm diameter tablet of height 1.12 to 1.18 mm, placed in a paraffin block. The experiment to determine rate of contact melting has been described (Ref.9: P.A.Savintsev, V.Ye.Avericheva, A.V.Vyatkina, V.Ya.Zlenko, M.I.Ignat'yeva, Izv.vyssh.uch. zavedeniy. (Fizika), 5, 128, 1959) and is carried out for irradiated and unirradiated samples simultaneously, the times of dissolution of unit volume being obtained. The systems investigated were: irradiated Bi in the Sn-Bi system and irradiated Cd in the Bi-Cd system. For temperatures approaching the temperature of contact melting considerable differences in the time of dissolution of irradiated and non-irradiated samples were observed, e.g. differences up to 1000 sec (actual times are not quoted). In addition to the samples irradiated for 50 hours by neutrons, the effects were studied for Bi in the Bi-Sn system which had been irradiated with X-rays for 1 to 30 min at an intensity of about 3500 mcuries/sec. For a definite dosage saturation of the rate of contact melting is achieved. There are 6 figures and 9 references: 8 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English language publication reads as follows:

Card 3/4

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22796
S/070/61/006/003/007/009
E036/E435

On the solution and contact ...

A.Carlson, "Growth and Perfection of Crystals", N.Y., 1958.

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S.M.Kirova (Tomsk Polytechnical Institute imeni S.M.Kirov)

SUBMITTED: August 9, 1960

Card 4/4

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

3144

S/139/61/000/006/004/023
E039/E420

AUTHORS: Berzina, I.G., Botaki, A.A., Savintsev, P.A.

TITLE: Changes in the modulus of elasticity and microhardness with exposure (to radiation)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Fizika, no.6, 1961, 30-34

TEXT: It is well known that radiation causes changes in crystalline systems. In particular, irradiation with electrons increases the Young's modulus of various metals up to a limiting value. Similarly, irradiation of single crystals of copper with γ-radiation produces an increase in the modulus of elasticity. In addition, the Young's modulus for graphite and single crystals of copper is substantially increased by irradiation with neutrons in a reactor. In this paper it is shown that the modulus of elasticity of the eutectic alloy Zn-Cd increases by about 2.5% after storage for one year after preparation, whereas in the case of Pb-Bi the modulus increases by about 6% after 45 hours. These changes in Young's modulus were determined by an ultrasonic method. The effect of exposure to slow neutrons and γ-radiation from a

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Changes in the modulus ...

radium beryllium source (4.8×10^6 n sec) on the Young's modulus for bismuth and tin was also examined. A maximum increase of about 1% is reached after 70 and 100 hours exposure respectively (Fig.2,3). The effect of irradiation by high energy γ-radiation (15 MeV) on bismuth and tin is similar, showing an increase in modulus of about 2% after a few hours exposure. In the case of rock salt a dose of 3000 r (25 MeV γ) increased the Young's modulus by about 1%. The change in Young's modulus ΔE caused by irradiation of Zn-Cd alloys of various Zn content to X-radiation is shown in Fig.5. ΔE passes through a sharp maximum at about 29% Zn. An exposure of 30 min to 1.2 MeV γ-radiation changed the microhardness of the Bi-Pb alloy from 3.05 to 5.52 kg/mm^2 and for the Bi-Sn alloy from 4.10 to 6.60 after 25 hours. In the case of Zn-Cd, an exposure to 130 r/min of 48 kV X-rays resulted in an increase in microhardness from 24.4 kg/mm^2 to a maximum of 30.2 kg/mm^2 after 2 hours, after which it fell rapidly to near its normal value. There are 5 figures, 4 tables and 14 references: 3 Soviet and 11 non-Soviet-bloc. The four most recent references to English language publications

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

Changes in the modulus ...

read as follows: Ref.1: H. Dieckamp, A. Sosin. J. Appl. Phys., v.27, no.12, 1956; Ref.2: D.D.Thompson, D.K.Holmes. J. Phys. and hem. Solids, v.1, no.4, 1957; Ref.5: H.S.Selers, D.A.Powell et al, Bull. Am. Phys. Soc., II, no.1, 1956, 379; Ref.10: D.D.Thompson, T.H.Blewitt, D.K.Holmes. J. Appl. Phys., v.28, 1957, 742.

ASSOCIATION: Tomskiy politekhnicheskiy institut imeni S.M.Kirova
(Tomsk Polytechnical Institute imeni S.M.Kirov)

SUBMITTED: July 15, 1960

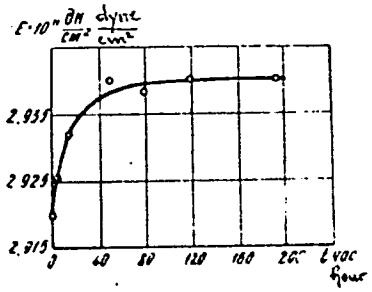

Fig.2.

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

S/139/62/000/003/019/021
E193/E383

AUTHORS: Berzina, I.G., Savitskaya, L.K. and Savintsev, P.A.

TITLE: A study of the structure of metals near the [liquid/solid] interface during contact fusion

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no. 3, 1962, 160 - 165 + 1 plate

TEXT: When two metals which form a eutectic are brought into intimate contact and heated to a temperature lower than the melting point of either metal, but higher than the eutectic temperature, a liquid phase is formed at the plane of contact. The object of the present investigation was to study the mechanism of this phenomenon. The experiments were conducted on Sn-Bi, Sn-Cd and Cd-Zn couples. Cylindrical specimens, prepared by drawing molten metals into glass tubes, were used with the contact surfaces made flat by polishing. The technique described by P.A. Savintsev and A.V. Vyatkina (Izv. vuzov SSSR, Chernaya metallurgiya, no. 2, 1959, 89) was used to bring about contact fusion, the holding temperatures of 150 and 280 °C being used for the Sn-Bi and Cd-Zn couples, respectively. Metallographic

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZINA, I.G.; SAVINTSEV, P.A.

Effect of radiation on contact melting of crystals. Izv. TPI 122:33-39 '62. (MIRA 17:9)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

SAVINTSEV, P.A.; NAUMOV, A.F.; BERZINA, I.G.

Kinetics of the dissolution of crystals following irradiation.
Izv. TPI 122:39-44 '62. (MIRA 17:9)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

BERZINA, I.G.; SAVINTSEV, P.A.

Contact melting of irradiated crystals. Kristallografiia 7 no.1:159-162 Ja-F '62. (MIRA 15:2)

1. Tomskiy politekhnicheskiy institut im. S.M. Kirova.
(Metals, Effect of radiation on)
(Melting)

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

S/070/62/007/002/021/022
E132/E160

24,7300

AUTHORS: Berzina, I.G., and Berman, I.B.

TITLE: On the change in dislocation density, the rate of contact melting and the rate of solution of crystals which have undergone irradiation

PERIODICAL: Kristallografiya, v.7, no.2, 1962, 330-332

TEXT: Crystals of various metals and of NaCl were irradiated with neutrons or with 2 MeV γ-rays for different periods. For the three phenomena, contact melting for pairs of the metals (Sn-Bi, Sn-Cd, Bi-In, etc), solution of NaCl in water and dislocation density in KCl, there were increases to 1.2 times normal when crystals were tested immediately after irradiation, but after annealing at 20 °C for some hours the values decayed to below those for unirradiated crystals. There are 3 figures.

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S.M. Kirova (Tomsk Polytechnical Institute imeni S.M. Kirov)

SUBMITTED: July 29, 1961

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APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

38381
S/070/62/007/003/013/026
E132/E460

AUTHORS: Anokhina, I.N., Berzina, I.G., Berman, I.B., Sokolov, L.S.

TITLE: The coefficient of linear expansion of crystals of KCl irradiated by protons

PERIODICAL: Kristallografiya, v.7, no.3, 1962, 429-432

TEXT: In crystals of KCl the dependence of the coefficient of linear expansion and the dislocation density on the dose of 4.5 Mev protons with which the crystal has been irradiated have been studied. It is shown that the change in the coefficient of linear expansion corresponds to the change in dislocation density. Crystals of KCl, with dimensions about 25 x 5 x 5 mm, were irradiated in the beam from the cyclotron in the Tomsk Polytechnical Institute at a distance of 5 m from the deflector which gave a dose rate for 4.5 Mev protons of 6×10^{10} protons/cm^2/sec. The temperature was 20 to 30°C. The thermal expansion coefficient was then measured over the interval 25 to 500°C to 10^{-8} deg^{-1}. Graphs are given showing a minimum coefficient of 345×10^{-7}/deg at a dose of 10^{14} protons/cm^2 increasing linearly to 357 at zero

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dose and at 4×10^{14}. The temperature dependence of the coefficient of expansion also depends slightly on dose. The penetration depth of the protons, as measured by the colouring produced was about 20 microns. The dislocation density plotted against dose follows the same course as the expansion and shows a distinct minimum density at a dose of about $2 \times 10^{14}/cm^2$. There are 5 figures.

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S.M.Kirova
(Tomsk Polytechnical Institute imeni S.M.Kirov)

SUBMITTED: July 29, 1961

APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8"

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

S/070/62/007/004/013/016
E021/E435

AUTHORS: Anokhina, I.N., Berzina, I.G., Savintsev, P.A.

TITLE: Coefficient of linear expansion of alkali-halide crystal subjected to radiation

PERIODICAL: Kristallografiya, v.7, no.4, 1962, 637-639

TEXT: The accuracy of the method was 10^{-8} deg^{-1}. The radiation source was Ra-α-Be with an activity of 4.8×10^6 neutrons/sec and a γ-radiation activity of 10 r/min. The radiation dose in all cases was 4×10^{10} neutron/cm^2 and 750 r/cm^2. Under these conditions the expansion coefficients of 25 x 5 x 5 mm NaCl, KCl and KBr crystals were measured in the range 100 to 300°C after irradiation at room temperature. Immediately after irradiation there was an increase in the coefficient and the increase was more marked at higher temperatures. It is suggested that this is due to the appearance of defects in the structure caused by radiation and it is shown that the relation between the expansion coefficient and the radiation dose is similar to that between the

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

ACCESSION NR: AT4030808 S/0000/63/000/000/0281/0287

AUTHOR: Berzina, I. G.; Savintsev, P. A.

TITLE: The effect of the defectiveness of metal structures on contact fusion

SOURCE: AN UkrSSR. Institut metallokeramiki i spetsial'ny*kh splavov. Poverkhnostny*ye yavleniya v rasplavakh i protsessakh poroshkovoy metallurgii (surface phenomena in liquid metals and processes in powder metallurgy). Kiev, Izd-vo, AN UkrSSR, 1963, 281-287

TOPIC TAGS: structure defect, contact fusion, crystal, radiation

ABSTRACT: In this paper the authors investigated the defectiveness of crystals at high temperatures at which a method of contact fusion can be used for metal vapors which have a maximum fusibility diagram. They also investigated the radiation failures in this crystal at increased temperatures which determine the velocity change of fusion in contact with a number of other metals. The results are presented in graphs. A diagram of the circuitry is given. The authors concluded that the velocity of contact fusion changes with the change in the defectiveness of the structure of the samples under radiation. The change of velocity of contact fusion with a change of radiation dose makes it possible to judge the defects in the crystals provided by the radiation. The annealing of the radiation defects occurs at

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ACCESSION NR: AT4030808

temperatures exceeding the temperature of contact fusion. The relaxation of the exposed crystals is accompanied by a change in the defectiveness of their structure which affects the changes in the velocity of the contact fusion. Orig. art. has: 4 figures.

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S. M. Kirova (Tomsk Polytechnic Institute)

SUBMITTED: 23Nov63 DATE ACQ: 16Apr64 ENCL: 00

SUB CODE: ML NO REF SOV: 013 OTHER: 006

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L 6907-65 EWT(l)/EWT(m)/EPF(c)/EPF(n)-2/T/EEC(b)-2 Pr-4/Pu-4 IJP(c)/
ESD(gs) GG
ACCESSION NR: AR4039927 S/0058/64/000/004/E081/E081

SOURCE: Ref. zh. Fiz., Abs. 4E635 58

AUTHORS: Anokhina, I. N.; Berzina, I. G.; Savintsev, P. A.

TITLE: Temperature coefficient of linear expansion of crystals 21 subjected to irradiation 19

CITED SOURCE: Mezhvuz. sb. tr. Zap.-Sib. sovet po koordinatsii i planir, nauchno-issled. rabot po tekhn. i yestestv. naukam, vy*p 2, 1963, 93-95

TOPIC TAGS: alkali halide, neutron irradiation, gamma irradiation, coefficient of thermal expansion, potassium compound

TRANSLATION: The joint action of neutron (4×10^{10} neutron/sec) and gamma irradiation (750 roentgen) on the coefficient of linear expansion (CLE) of KCl, KBr, and KI was investigated in the 100--500° interval. The CLE of the irradiated crystals was found to be higher

Card 1/2

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"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205110004-8

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ACCESSION NR: AR4039927

(by up to 5%) than that of non-irradiated crystals over the entire temperature interval. For KBr the difference between the CLE of irradiated and non-radiated crystals begins to decrease above 350°, while for KI -- above 320°. This is attributed to the difference in the binding energies in the crystals. It is shown that the CLE resumes its initial value eight hours after rising as a result of irradiation of KCl, after which it continues to decrease reaching after 28 hours a constant value of ~96% of initial. The dependence of the CLE of KCl on the radiation dose of protons with energies 4.5 MeV was investigated. It is established that at 100° the CLE first drops to the minimum at $\sim 10^{14}$ proton/cm^2, after which it increases and reaches its initial value at $\sim 4 \times 10^{14}$ proton/cm^2. Under the assumption that the dependence of the dislocation density on the proton-radiation dose is analogous in form, it is concluded that the CLE is connected with the defect density. L. By*strov.

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